## AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of organizing data in a storage device, comprising:

receiving data in the storage device;

transforming the received data into ~~a first data object~~ plural data objects; [[and]]

storing the ~~first data object~~ plural data objects in [[a]] corresponding plural hierarchical data ~~structure~~ structures, each of the hierarchical data ~~structure~~ structures containing plural levels of data objects; and

receiving an access request containing an identifier of one of the hierarchical data structures.

2. (Currently Amended) The method of claim 1, wherein the received data is associated with information describing the received data, and [[the]] each hierarchical data structure contains plural levels of interconnected nodes, each node representing a respective data object, wherein storing ~~the first data object~~ a particular one of the data objects in the corresponding hierarchical data structure comprises storing the [[first]] particular data object as one of the nodes of the corresponding hierarchical data structure based on the information describing the received data.

3. (Currently Amended) The method of claim 2, wherein receiving the data comprises receiving ~~a file~~ files each having a header portion containing the information describing the received data.

4. (Currently Amended) The method of claim 1, wherein the received data is associated with information describing the received data, and

wherein different portions of [[the]] each hierarchical data structure represent different categories of data, and wherein storing ~~the first data object~~ a particular one of the data objects in the corresponding hierarchical data structure comprises storing the [[first]] particular data object in one of the different portions of the corresponding hierarchical data structure based on the information describing the received data.

1    5.    (Cancelled)

1    6.    (Currently Amended)  The method of claim [[5]] 1, wherein the plural hierarchical data

2    structures are distinct hierarchical data structures to store respective different groups of data,

3    wherein storing data objects in respective ones of the distinct hierarchical data structures is based

4    on respective types of data contained in the data objects.

1    7.    (Currently Amended)  The method of claim 1, wherein receiving the data comprises

2    receiving plural files, wherein transforming the received data into plural data objects comprises

3    transforming the files into plural respective data objects a first file, and the hierarchical data

4    structure comprises a first hierarchical data structure, the method further comprising:

5            receiving a second file in the storage device;

6            transforming the second file to a second data object; and

7            storing the second data object in a second hierarchical data structure.

1    8.    (Currently Amended)  The method of claim 7, wherein each of the first and second files

2    contains metadata to describe data contained in the respective one of the first and second files,

3            wherein storing each of the first and second data objects in a respective one of the first

4    and second hierarchical data structures is based on the metadata associated with a respective one

5    of the first and second files.

3

1    9.    (Currently Amended)  An article comprising at least one storage medium containing

2    instructions that when executed cause a storage controller of a storage device to:

3    receive [[data]] files for storage in the storage device, wherein the received data is files

4    are each associated with metadata;

5    transform the received [[data]] files into a first data object respective data objects; and

6    store the first data object data objects in a data structure respective plural hierarchical

7    data structures, [[the]] each hierarchical data structure having plural portions for storing plural

8    respective categories of data objects,

9    wherein the first data object a particular one of the data objects is stored in one of the

10   plural portions of the corresponding hierarchical data structure based on the metadata; and

11   receive an access request containing an identifier that identifies one of the hierarchical

12   data structures.


1    10.    (Currently Amended)  The article of claim 9, wherein the data structure comprises a each

2    hierarchical data structure having has plural interconnected nodes, each node representing a

3    corresponding data object,

4    wherein storing the [[first]] particular data object comprises storing the [[first]] particular

5    data object as one of the nodes in the corresponding hierarchical data structure based on the

6    metadata.


1    11.    (Currently Amended)  The article of claim 10, wherein receiving the [[data]] files

2    comprises receiving a file files each having a header portion containing the metadata.


1    12.    (Cancelled)


4

1    13.   (Currently Amended)  The article of claim [[12]] 9, wherein [[the]] a first [[file]] one of

2    the files is associated with metadata indicating a category of data in the first file, and [[the]] a

3    second [[file]] one of the files is associated with metadata indicating a category of data in the

4    second file,

5          wherein storing the first and second data objects in respective first and second

6    hierarchical data structures is based on the respective metadata.


1    14.   (Cancelled)


1    15.   (Currently Amended)  The article of claim [[14]] 26, wherein the instructions when

2    executed cause the system to apply the function software routine to the data object in response to

3    a request to access the data object to be accessed by the access request.


1    16.   (Currently Amended)  A system comprising:

2          a storage to store [[a]] hierarchical data structure structures, [[the]] each hierarchical data

3    structure containing plural levels of data objects;

4          a module to receive data; and

5          a controller to transform the received data into a first data object plural data objects, and

6    to store the first data object plural data objects in [[the]] corresponding hierarchical data structure

7    structures; and

8          the controller to receive plural access requests containing identifiers of different ones of

9    the hierarchical data structures.


1    17.   (Currently Amended)  The system of claim 16, wherein the storage is to store plural

2    hierarchical data structures, the controller is to store the first data object data objects in one of the

3    plural corresponding hierarchical data structures based on metadata associated with the received

4    data.


1    18.   (Cancelled)

1    19.    (Currently Amended)  The system of claim 17, wherein the received data comprises a

2    ~~first file, and the data object comprises a first data object, the module to further receive a second~~

3    ~~file~~ plural files, and the controller is to transform the ~~second file~~ plural files to ~~a second data~~

4    ~~object~~ corresponding data objects, each of the ~~first and second~~ files associated with respective

5    metadata,

6         the controller to <u>further</u> store [[the]] <u>a</u> first <u>one of the</u> data ~~object~~ <u>objects</u> in a first one of

7    the hierarchical data structures based on the respective metadata indicating that the first file

8    contains data belonging to a first category, and

9         the controller to <u>further</u> store [[the]] <u>a</u> second <u>one of the</u> data ~~object~~ <u>objects</u> in a second

10   one of the hierarchical data structures based on the respective metadata indicating that the second

11   file contains data belonging to a second category.


1    20.    (Currently Amended)  The system of claim 16, wherein the received data is associated

2    with information describing the received data, and [[the]] <u>each</u> hierarchical data structure

3    includes plural portions to store different categories of data,

4         the controller to store ~~the first data object~~ <u>a particular one of the data objects</u> in one of the

5    plural portions <u>of the corresponding hierarchical data structure</u> based on the information

6    associated with the received data that indicates a category of the received data.


1    21.    (Currently Amended)  The system of claim 16, wherein the received data is associated

2    with information to indicate a category of the received data, and the hierarchical data structure

3    comprises a tree of interconnected nodes,

4         the controller to store [[the]] <u>a corresponding</u> data object in the hierarchical data structure

5    as a node in the tree of interconnected nodes based on the information indicating the category of

6    the received data.


1    22.    (New)  The method of claim 1, further comprising:

2         in response to the access request containing the identifier, accessing the one of the

3    hierarchical data structures to perform an access specified by the access request.

1     23.     (New) The method of claim 1, wherein receiving the access request comprises receiving

2     one of a read request containing the identifier and a write request containing the identifier.


1     24.     (New) The method of claim 1, wherein receiving the access request comprises receiving

2     the access request containing a field to access a software routine for manipulating a data object

3     that is to be accessed in response to the access request.


1     25.     (New) The article of claim 9, wherein the instructions when executed cause the storage

2     controller to further access the one of the hierarchical data structures in response to the access

3     request to access a data object in the one of the hierarchical data structures.


1     26.     (New) The article of claim 9, wherein the access request further contains a field to access

2     a software routine for manipulating a data object to be accessed in response to the access request.


1     27.     (New) The system of claim 16, wherein the controller is to further access different data

2     objects in different hierarchical data structures in response to the identifiers of the access

3     requests.


1     28.     (New) The system of claim 16, wherein each access request further contains a field to

2     invoke a respective software routine for manipulating a respective data object to be accessed in

3     response to the access request.